

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 26, lines 17-27 as follows:

The sequence alignments disclose several conserved sequence elements distributed throughout the polypeptide sequences. For instance, some conserved elements include, but are not limited to: DGFGXGLXVTLVPXYISE (SEQ ID NO:45), NTLPQFXGXXGGMFLSYCMVFGMSL (SEQ ID NO:46), MLGV LXIPSL (SEQ ID NO:47), RWL VSKGRMXEAK (SEQ ID NO:48), EYIIGP (SEQ ID NO:49), DPXVTLFGSXHE (SEQ ID NO:50), GSMRSXLFPXFGSMFS (SEQ ID NO:51), IGGGWQXAWKW (SEQ ID NO:52), LQQFXGINGVLYYTPQILEXAGV (SEQ ID NO:53), LMDXSGRRXLLLXTIPXLI (SEQ ID NO:54), YFCXFVMGFGPXPNILCXEIFPTXVRGLCIAICA (SEQ ID NO:55), or KVPETKGMPLEVIXEFF (SEQ ID NO:56), where each letter represents an amino acid except “X” which can be any, or no, amino acid. Any, or all, of these elements can be used to identify proteins involved in sugar transport in plants. Minor modifications, such as conserved amino acid substitutions, may be found in some plant sequences.

Please replace the paragraph at page 29, lines 22-29 as follows:

The sequence alignments disclose several conserved sequence elements distributed throughout the polypeptide sequences. For instance, some conserved elements include, but are not limited to: PESPRWL (SEQ ID NO:39), PETXG (SEQ ID NO:40), LGYDXIGVMSG A (SEQ ID NO:41), GRXXXGXGVG (SEQ ID NO:42), GIHFFQ (SEQ ID NO: 43), or FSXGXG (SEQ ID NO: 44), where each letter represents an amino acid

except “X” which can be any, or no, amino acid. Any, or all, of these elements can be used to identify proteins involved in sugar transport in plants. Minor modifications, such as conserved amino acid substitutions, may be found in some plant sequences.

Please replace the paragraph from page 35, line 31 to page 36, line 7 as follows:

For high level expression, a plasmid clone with the cDNA insert in the correct orientation relative to the T7 promoter can be transformed into *E. coli* strain BL21(DE3) (Studier et al. (1986) *J. Mol. Biol.* 189:113-130). Cultures are grown in LB medium containing ampicillin (100 mg/L) at 25°C. At an optical density at 600 nm of approximately 1, IPTG (isopropylthio- β -galactoside, the inducer) can be added to a final concentration of 0.4 mM and incubation can be continued for 3 h at 25°. Cells are then harvested by centrifugation and re-suspended in 50 μ L of 50 mM ~~Tris-HCl~~ TRIS® HCl (hydroxymethyl)aminomethane hydrochloride at pH 8.0 containing 0.1 mM DTT and 0.2 mM phenyl methylsulfonyl fluoride. A small amount of 1 mm glass beads can be added and the mixture sonicated 3 times for about 5 seconds each time with a microprobe sonicator. The mixture is centrifuged and the protein concentration of the supernatant determined. One μ g of protein from the soluble fraction of the culture can be separated by SDS-polyacrylamide gel electrophoresis. Gels can be observed for protein bands migrating at the expected molecular weight.